F-26

SHEET OF

ITEM NO.	EQUIPMENT REQUIRED FOR HOT SHUTDOWN (ISOLATION CONDENSER) - UNIT 2	ITEM NO.	EQUIPMENT REQUIRED FOR HOT SHUTDOWN (ISOLATION CONDENSER) - UNIT 3
21	4KV SWGR. 23 CTRL FD	31	4KV SWGR. 33 CTRL FD
22	4KV SWGR. 23 TIE TO 23-1	32	4KV SWGR. 33 TIE TO 33-1
23	4KV SWGR. 23-1 DC FD	33	4KV SWGR. 33-1 DC FD
24	4KV SWGR. 23-1 CTRL FD	34	4KV SWGR. 33-1 CTRL FD
25	4KV SWGR. 24 CTRL FD	35	4KV SWGR. 34 CTRL FD
26	4KV SWGR. 24 TIE TO 24-1	36	4KV SWGR. 34 TIE TO 34-1
27	4KV SWGR. 24-1 DC FD	37	4KV SWGR. 34-1 DC FD
28	4KV SWGR. 24-1 CTRL FD	38	4KV SWGR. 34-1 CTRL FD
29	4KV SWGR. 24-1 TIE TO 34-1	39	———
210	480V. SWGR. 28 MN FD	310	480V SWGR. 38 MN FD
211	480V. SWGR. 28 CTRL FD	311	480V SWGR. 38 CTRL FD
212	480V. SWGR. 28-29 TIE	312	480V SWGR. 38-39 TIE
213	480V. SWGR. 29 MN FD	313	480V SWGR. 39 MN FD
214	480V. SWGR 29 CTRL FD	314	480V SWGR. 39 CTRL FD
215	480V. MCC 28-1	315	480V MCC 38-1
216	480V. MCC 28-2	316	480V MCC 38-2
217	480V. MCC 28-3	317	480V MCC 38-3
218	———	318	———
219	480V MCC 29-2	319	480V MCC 39-2
220	———	320	———
221	250V DC MCC 2	321	250V DC MCC 3
222	250V DC MCC 2A	322	250V DC MCC 3A
223	250V DC MCC 2B	323	250V DC MCC 3B
224	125V - DC MN BUS 2	324	125V DC MN BUS 3
225	125V DC RES BUS 2	325	125V DC RES BUS 3
226	125V DC RD DP 2	326	125V DC RD DP 3
227	120/240V ESS DP 902-49	327	120/240V ESS DP 903-49
228	120/240V INSTR BUS 902-50	328	120/240V INSTR. BUS 903-50
229	DIESEL GEN 2	329	DIESEL GEN 3
230	DIESEL GEN 2 CLG WTR PU	330	DIESEL GEN 3 CLG WTR PU
231	DIESEL GEN 2 VENT FAN	331	DIESEL GEN 3 VENT FAN
232	DIESEL GEN 2 OIL XFR PU	332	DIESEL GEN 3 OIL XFR PU
3201	DIESEL GEN 2/3 EXCIT/CTRL/MTRG	3201	———
3202	DIESEL GEN 2/3 VENT FAN	3202	———
3203	———	3203	DIESEL GEN 2/3 CLG. WTR PU
3204	———	3204	DIESEL GEN 2/3 OIL XFR PU
233	VLV M02-1301-1	333	VLV M03-1301-1
234	VLV M02-1301-2	334	VLV M03-1301-2
235	VLV M02-1301-3	335	VLV M03-1301-3
236	VLV M02-1301-4	336	VLV M03-1301-4
237	VLV M02-1301-10	337	VLV M03-1301-10
238	VLV PD2-1301-17	338	VLV PD3-1301-17
239	VLV PD2-1301-20	339	VLV PD3-1301-20
240	VLV M02-4102	340	VLV M02-4102
241	TGT RK VLV 2-0203-3A	341	TGT RK VLV 3-0203-3A
242	E.M. RLF. VLV 2-0203-3A	342	E.M. RLF VLV 3-0203-3A
243	E.M. RLF. VLV 2-0203-3B	343	E.M. RLF VLV 3-0203-3B
244	E.M. RLF. VLV 2-0203-3C	344	E.M. RLF VLV 3-0203-3C
245	E.M. RLF. VLV 2-0203-3D	345	E.M. RLF VLV 3-0203-3D
246	E.M. RLF. VLV 2-0203-3E	346	E.M. RLF VLV 3-0203-3E
247	COND. TRANS. PUMP 2A	347	COND. TRANS. PUMP 3A
248	COND. TRANS. PUMP 2B	348	COND. TRANS. PUMP 3B
249	CTRL ROD DR PUMP 2A	349	CTRL ROD DR PUMP 3A
250	CTRL ROD DR PUMP 2B	350	CTRL ROD DR PUMP 3B
251	SERV. WTR PUMP 2A	351	SERV. WTR. PUMP 3A
252	SERV. WTR PUMP 2B	352	SERV. WTR. PUMP 3B
295	125V. D.C. BATT. CHGR 2	395	125 V. D.C. BATT. CHGR. 3
296	125V. D.C. BATT. CHGR 2A	396	125 V. D.C. BATT. CHGR. 3A
2039	FIRE PROTECTION CO_2 SYSTEM	3039	FIRE PROTECTION CO_2 SYSTEM
288	480V FD TO RX PROT M-G SET 2A	388	480V. FD. TO RX. PROT. M-G SET 3A
289	480V FD TO RX PROT M-G SET 2B	389	480V. FD TO RX. PROT. M-G SET 3B
290	RX LEVEL INDICATORS 2-263-100A & -100B	390	RX LEVEL INDICATORS 3-263- 100A & -100B
291	RX LEVEL INDICATORS 2-263-101	391	RX LEVEL INDICATORS 3-263- 101
292	RX LEVEL INDICATORS 2-263-106A & -106B	392	RX LEVEL INDICATORS 3-263- 106A & -106B
293	RX LEVEL RECORDERS 2-263-116 & -117	393	RX LEVEL RECORDERS 3-263- 116 & -117
294	RX PRESS INDICATORS 2-640-25A & -25B	394	RX PRESS INDICATORS 3-640- 25A & 25B
294	RX PRESS INDICATORS 2-640-29A & -29B	394	RX PRESS INDICATORS 3-640- 29A & 29B
294	RX PRESS RECORDERS 2-640-24A, -24B & -24C	394	RX PRESS RECORDERS 3-640 -24A-24B & 24C
294	RX PRESS RECORDER 2-640-26	394	RX PRESS RECORDER 3-640-26
298	RX PRESS RECORDER 2-640-27	398	RX PRESS RECORDER 3-640-27
299	RX PRESS RECORDER 2-640-28	399	RX PRESS RECORDER 3-640-28
2005	SENSOR & AUX. RLYS. CKT. "A"	3005	SENSOR & AUX. RLYS. CKT. "A"
2006	SENSOR & AUX. RLYS. CKT. "B"	3006	SENSOR & AUX. RLYS. CKT. "B"
2007	SYSTEM I CKT. "A"	3007	SYSTEM I CKT. "A"
2008	SYSTEM I CKT. "B"	3008	SYSTEM I CKT. "B"
2009	SYSTEM II CKT. "A"	3009	SYSTEM II CKT. "A"
2010	SYSTEM II CKT. "B"	3010	SYSTEM II CKT. "B"
2011	SYSTEM I CORE SPRAY	3011	SYSTEM I CORE SPRAY
2012	SYSTEM II CORE SPRAY	3012	SYSTEM II CORE SPRAY
2017	PCIS CKT. "A"	3017	PCIS CKT. "A"
2018	PCIS CKT. "B"	3018	PCIS CKT. "B"
2019	PCIS RESET CKT.	3019	PCIS RESET CKT.
2020	PROCESS RADIATION MONITORING SYS. CKT. "A"	3020	PROCESS RADIATION MONITORING SYS. CKT. "A"
2021	PROCESS RADIATION MONITORING SYS. CKT. "B"	3021	PROCESS RADIATION MONITORING SYS. CKT. "B"
2022	MAIN STEAM ISOLATION CKT. INBOARD CKT. "A"	3022	MAIN STEAM ISOLATION CKT. INBOARD CKT. "A"
2023	MAIN STEAM ISOLATION CKT. INBOARD CKT. "B"	3023	MAIN STEAM ISOLATION CKT. INBOARD CKT. "B"
2024	PCIS SENSOR & TRIP LOGIC CKT. "A"	3024	PCIS SENSOR & TRIP LOGIC CKT. "A"
2025	PCIS SENSOR & TRIP LOGIC CKT. "B"	3025	PCIS SENSOR & TRIP LOGIC CKT. "B"
2027	AUTO BLOWDOWN PART 1	3027	AUTO BLOWDOWN PART 1
2028	AUTO BLOWDOWN PART 2 - CKT. "A"	3028	AUTO BLOWDOWN PART 2 - CKT. "A"
2029	AUTO BLOWDOWN PART 2 - CKT. "B"	3029	AUTO BLOWDOWN PART 2 - CKT. "B"
2036	PCIS MAIN STEAM ISOL. CKT. "A" (OUTBOARD)	3036	PCIS MAIN STEAM ISOL. CKT. "A" (OUTBOARD)
2037	PCIS MAIN STEAM ISOL. CKT. "B" (OUTBOARD)	3037	PCIS MAIN STEAM ISOL. CKT. "B" (OUTBOARD)
2061	4KV SWGR. BUS 23 UNDERVOLTAGE RLY.	3061	4KV SWGR. BUS 23 UNDERVOLTAGE RLY.
2062	4KV SWGR. BUS 23-1 UNDERVOLTAGE RLY.	3062	4KV SWGR. BUS 23-1 UNDERVOLTAGE RLY.
2063	4KV SWGR. BUS 24 UNDERVOLTAGE RLY.	3063	4KV SWGR. BUS 24 UNDERVOLTAGE RLY.
2064	4KV SWGR. BUS 24-1 UNDERVOLTAGE RLY.	3064	4KV SWGR. BUS 24-1 UNDERVOLTAGE RLY.

ITEM NO.	EQUIPMENT REQUIRED FOR HOT SHUTDOWN (HPCI / LPCI) - UNIT 2	ITEM NO.	EQUIPMENT REQUIRED FOR HOT SHUTDOWN (HPCI / LPCI) - UNIT 3
26	4KV SWGR. 24 TIE TO 24-1	36	4KV SWGR. 34 TIE TO 34-1
27	4KV SWGR. 24-1 DC FD	37	4KV SWGR. 34-1 DC FD
29	4KV SWGR. 24-1 TIE TO 34-1	39	———
210	480V SWGR. 28 MN FD	310	480V SWGR. 38 MNFD
211	480V SWGR. 28 CTRL FD	311	480V SWGR. 38 CTRL FD
212	480V SWGR. 28-29 TIE	312	480V SWGR. 38-39 TIE
213	480V SWGR. 29 MN FD	313	480V SWGR. 39 MN FD
214	480V SWGR. 29 CTRL FD	314	480V SWGR. 39 CTRL FD
216	480V MCC 28-2	316	480V MCC 38-2
218	480V MCC 29-1	318	480V MCC 39-1
219	480V MCC 29-2	319	480V MCC 39-2
220	480V MCC 29-4	320	———
221	250V DC MCC 2	321	250V DC MCC 3
222	250V DC MCC 2A	322	250V DC MCC 3A
223	250V DC MCC 2B	323	250V DC MCC 3B
224	125 V DC MN BUS 2	324	125 V DC MN BUS 3
225	125 V DC RES BUS 2	325	125 V DC RES BUS 3
226	125 V DC RB DP 2	326	125 V DC RB DP 3
227	120/240V ESS DP 902-49	327	120/240V ESS DP 903-49
228	120/240V INSTR. BUS 902-50	328	120/240V INSTR. BUS 903-50
229	DIESEL GEN. 2	329	DIESEL GEN. 3
230	DIESEL GEN. 2 CLG. WTR PU.	330	DIESEL GEN. 3 CLG. WTR. PU
231	DIESEL GEN 2 VENT FAN	331	DIESEL GEN. 3 VENT FAN
232	DIESEL GEN 2 OIL XFR PU	332	DIESEL GEN. 3 OIL XFR PU.
253	VLV. M02-1501-3B	353	VLV. M03-1501-3B
254	VLV. M02-1501-5C	354	VLV. M03-1501-5C
255	VLV. M02-1501-5D	355	VLV. M03-1501-5D
256	VLV. M02-1501-11B	356	VLV. M03-1501-11B
257	VLV. M02-1501-13B	357	VLV. M03-1501-13B
258	VLV. M02-1501-18B	358	VLV. M03-1501-18B
259	VLV. M02-1501-19B	359	VLV. M03-1501-19B
260	VLV. M02-1501-20B	360	VLV. M03-1501-20B
261	VLV. M02-1501-32B	361	VLV. M03-1501-32B
262	VLV. M02-1501-38B	362	VLV. M03-1501-38B
263	VLV. M02-2301-3	363	VLV. M03-2301-3
264	VLV. M02-2301-4	364	VLV. M03-2301-4
265	VLV. M02-2301-5	365	VLV. M03-2301-5
266	VLV. M02-2301-6	366	VLV. M03-2301-6
267	VLV. M02-2301-8	367	VLV. M03-2301-8
268	VLV. M02-2301-9	368	VLV. M03-2301-9
269	VLV. M02-2301-10	369	VLV. M03-2301-10
270	VLV. M02-2301-14	370	VLV. M03-2301-14
271	VLV. M02-2301-15	371	VLV. M03-2301-15
272	VLV. M02-2301-35	372	VLV. M03-2301-35
273	VLV. M02-2301-36	373	VLV. M03-2301-36
274	CCSW PUMP 2C	374	CCSW PUMP 3C
275	CCSW PUMP 2D	375	CCSW PUMP 3D
276	CCSW PUMP CLR 2-5700-30C	376	CCSW PUMP CLR 3-5700-30C
277	CCSW PUMP CLR 2-5700-30D	377	CCSW PUMP CLR 3-5700-30D
278	HPCI CLG WTR PUMP 2	378	HPCI CLG WTR PUMP 3
279	HPCI COND. PUMP 2	379	HPCI COND. PUMP 3
280	HPCI AUX. OIL PUMP 2	380	HPCI AUX. OIL PUMP 3
281	HPCI EMG. OIL PUMP 2	381	HPCI EMG. OIL PUMP 3
282	HPCI COND. AIR EXH. FAN 2	382	HPCI COND. AIR EXH. FAN 3
283	HPCI EMG. AIR CLR 2	383	HPCI EMG. AIR CLR. 3
284	HPCI OIL TANK HTR 2	384	HPCI OIL TANK HTR 3
285	LPCI PUMP 2C	385	LPCI PUMP 3C
286	LPCI PUMP 2D	386	LPCI PUMP 3D
287	LPCI EMG. AIR CLR. 2-5746B	387	LPCI EMG. AIR CLR. 3-5746B
295	125V. D.C. BATT. CHGR. 2	395	125V. D.C. BATT. CHGR. 3
296	125V. D.C. BATT. CHGR. 2A	396	125V. D.C. BATT. CHGR. 3A
2039	FIRE PROTECTION CO_2 SYSTEM	3039	FIRE PROTECTION CO_2 SYSTEM
288	480V. FD. TO RX. PROT. M-G SET 2A	388	480V. FD. TO RX. PROT. M-G SET 3A
289	480V. FD. TO RX PROT. M-G SET 2B	389	480V. FD. TO RX. PROT. M-G SET 3B
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292	RX LEVEL INDICATORS 2-263-106A & 106B	392	RX LEVEL INDICATORS 3-263-106A & 106B
293	RX LEVEL RECORDERS 2-263-116 & 117	393	RX LEVEL RECORDERS 3-263-116 & 117
294	RX PRESS INDICATORS 2-640-25A & 25B	394	RX PRESS INDICATORS 3-640-25A & 25B
294	RX PRESS INDICATORS 2-640-29A & 29B	394	RX PRESS INDICATORS 3-640-29A & 29B
294	RX PRESS RECORDERS 2-640-24A-24B & 24C	394	RX PRESS RECORDERS 3-640-24A-24B & 24C
294	RX PRESS RECORDER 2-640-26	394	RX PRESS RECORDER 3-640-26
298	RX PRESS RECORDER 2-640-27	398	RX PRESS RECORDER 3-640-27
299	RX PRESS RECORDER 2-640-28	399	RX PRESS RECORDER 3-640-28
2005	SENSOR & AUX. RLYS. CKT. "A"	3005	SENSOR & AUX. RLYS. CKT. "A"
2006	SENSOR & AUX. RLYS. CKT. "B"	3006	SENSOR & AUX. RLYS. CKT. "B"
2007	SYSTEM I CKT. "A"	3007	SYSTEM I CKT. "A"
2008	SYSTEM I CKT. "B"	3008	SYSTEM I CKT. "B"
2009	SYSTEM II CKT. "A"	3009	SYSTEM II CKT. "A"
2010	SYSTEM II CKT. "B"	3010	SYSTEM II CKT. "B"
2011	SYSTEM I CORE SPRAY	3011	SYSTEM I CORE SPRAY
2012	SYSTEM II CORE SPRAY	3012	SYSTEM II CORE SPRAY
2017	PCIS CKT. "A"	3017	PCIS CKT. "A"
2018	PCIS CKT. "B"	3018	PCIS CKT. "B"
2019	PCIS RESET CKT.	3019	PCIS RESET CKT.
2020	PROCESS RADIATION MONITORING SYS. CKT. "A"	3020	PROCESS RADIATION MONITORING SYS. CKT. "A"
2021	PROCESS RADIATION MONITORING. SYS. CKT. "B"	3021	PROCESS RADIATION MONITORING SYS. CKT. "B"
2022	MAIN STEAM ISOLATION CKT. INBOARD CKT. "A"	3022	MAIN STEAM ISOLATION CKT. INBOARD CKT. "A"
2023	MAIN STEAM ISOLATION CKT. INBOARD CKT. "B"	3023	MAIN STEAM ISOLATION CKT. INBOARD CKT. "B"
2024	PCIS SENSOR & TRIP LOGIC CKT. "A"	3024	PCIS SENSOR & TRIP LOGIC CKT. "A"
2025	PCIS SENSOR & TRIP LOGIC CKT. "B"	3025	PCIS SENSOR & TRIP LOGIC CKT. "B"
2027	AUTO BLOWDOWN PART 1	3027	AUTO BLOW DOWN PART 1
2028	AUTO BLOWDOWN PART 2 - CKT. "A"	3028	AUTO BLOWDOWN PART 2 - CKT. "A"
2029	AUTO BLOWDOWN PART 2 - CKT. "B"	3029	AUTO BLOWDOWN PART 2 - CKT. "B"
2036	PCIS MAIN STEAM ISOL. CKT. "A" (OUTBOARD)	3036	PCIS MAIN STEAM ISOL. CKT. "A" (OUTBOARD)
2037	PCIS MAIN STEAM ISOL. CKT. "B" (OUTBOARD)	3037	PCIS MAIN STEAM ISOL. CKT. "B" (OUTBOARD)
2061	4KV SWGR. BUS 23 UNDERVOLTAGE RLY.	3061	4KV SWGR. BUS 23 UNDERVOLTAGE RLY
2062	4KV SWGR. BUS 23-1 UNDERVOLTAGE RLY.	3062	4KV SWGR. BUS 23-1 UNDERVOLTAGE RLY
2063	4KV SWGR. BUS 24 UNDERVOLTAGE RLY.	3063	4KV SWGR. BUS 24 UNDERVOLTAGE RLY
2064	4KV SWGR BUS 24-1 UNDERVOLTAGE RLY.	3064	4KV SWGR. BUS 24-1 UNDERVOLTAGE RLY

NOTES

1. ITEM No. — SERVICE DESCRIPTION

REFERENCE DRAWINGS

Docket # 50-237
Control # 8408140397
Date 8/10/84 of Document:
REGULATORY DOCKET FILE

TI APERTURE CARD

DRAWING RELEASE RECORD

REV.	DATE REL'D.	PREPARED	REVIEWED	APPROVED	PURPOSE

DRAWING RELEASE RECORD

FILM	REV.	DATE REL'D.	PREPARED	REVIEWED	APPROVED	PURPOSE
	A	8-7-84	S. Pawlowski	G. Peterson N/C	———	FOR RECORD.

FILM

RICHARD H. JASON 62-039202 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

8-7-84

SEAL

SCALE: NONE
PROJECT NUMBER: 6972-36

HOT SHUTDOWN ANALYSIS
ELECTRICAL EQUIPMENT LIST
DRESDEN STATION UNITS 2/3
COMMONWEALTH EDISON CO.

SARGENT & LUNDY ENGINEERS CHICAGO

DRAWING NO. F-26 REV. A

SHEET OF